

FACT SHEET

Site 7- Fuel Depot Area



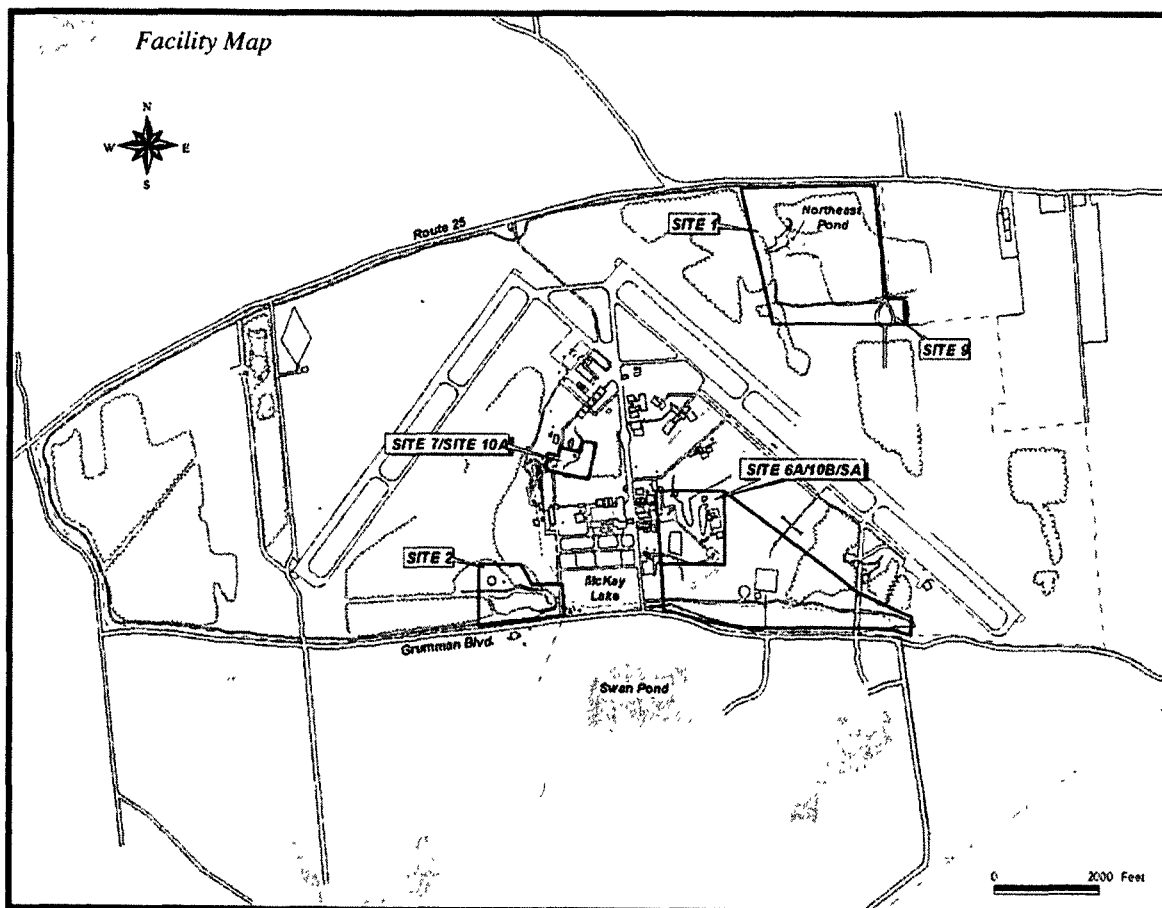
INSTALLATION RESTORATION PROGRAM

Naval Weapons Industrial Reserve Plant ■ Calverton, New York ■ April 2002

The Navy is sending this fact sheet as an update regarding the former Naval Weapons Industrial Reserve Plant at Calverton, New York. Facility investigations conducted at the NWIRP are being conducted in accordance with the facility's Part 373 Permit issued under 6NYCRR 373-2.6. The facility is not listed on the National Priorities List (NPL) but is listed on the New York State Registry of Inactive Hazardous Waste Sites. The Navy is working in cooperation with the New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), and Suffolk County Department of Health Services. The Navy announces the release of the Proposed Remedial Action Plan for Site 7- Fuel Depot.

SITE HISTORY AND DESCRIPTION

The Naval Weapons Industrial Reserve Plant Calverton currently consists of four separate parcels totaling approximately 358 acres. The plant was built in 1954 and was operated by Northrop Grumman Corporation (formerly Grumman Aerospace Corporation) for the U.S. Navy. Activities at the plant included: assembling, testing, flight testing, refitting, and retrofitting Naval aircraft. Northrop Grumman operations ended in February 1996 and in September 1998 a majority of the developed property was transferred to the Town of Riverhead for redevelopment (approximately 2,640 acres). In September 1999, 2,935 acres of undeveloped land was transferred to NYSDEC for management and 140 acres were transferred to the Department of Veterans Affairs.



Site 7 – Fuel Depot Area was used for the storage and distribution of fuel products, such as jet fuel, diesel, and gasoline. The fuels were stored in underground storage tanks (USTs). Tanks ranged in size from 4,000 to 50,000 gallons. Fuels were transferred from the USTs to trucks and the trucks transported the fuel to the flight preparation areas of the facility. As of April 1998, all the tanks had been removed from this site.

INVESTIGATION SUMMARY

The work at Site 7 is part of the Navy's Installation Restoration (IR) Program. The IR program is designed to identify environmental contamination at Navy and Marine Corps facilities and lands resulting from historical operations, and, to institute corrective measures as needed. This program consists primarily of four stages: Preliminary Assessment (PA), RCRA Facility Assessment/Sampling Visit (RFA) or Site Investigation (SI), RFI/Corrective Measures Study (CMS) or RI/FS, and Corrective Action or Remedial Action.

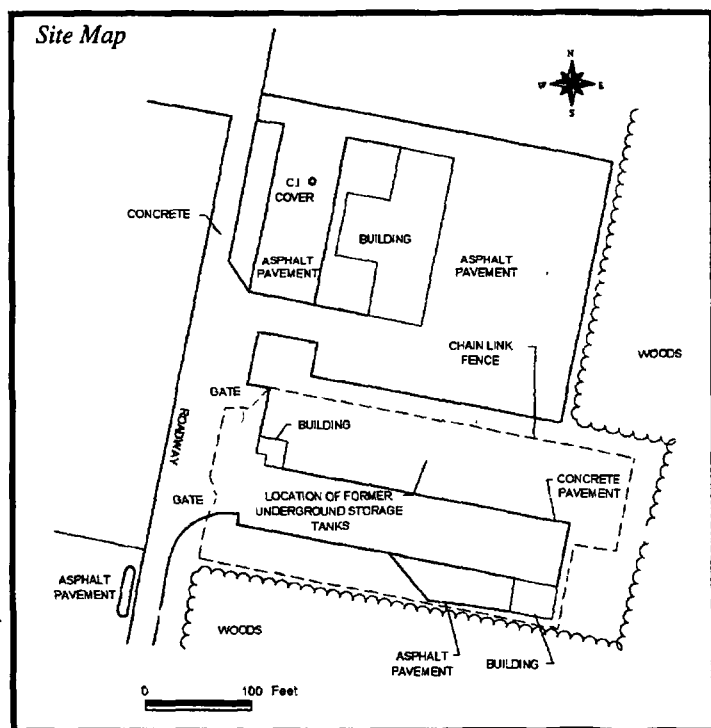
An IAS (PA) was conducted at NWIRP Calverton in 1986. Following was the RFI (RI) in 1994 and 1995 to determine the nature and extent of contamination and assess the potential risks to humans and the environment. A Phase 2 RI was conducted in 1997 to fill data gaps. A CMS (FS) was completed in 2002. The CMS, the subject of this PRAP, was prepared to address groundwater contamination. These actions will also address the limited soil contamination that exists at the soil-groundwater interface.

EXTENT OF CONTAMINATION

Floating free petroleum product was first identified at the site in 1989. The extent of the free product was mostly limited to the area of the underground storage tanks. Free product recovery was conducted by Northrop Grumman until 1995. Since 1995, a separate floating free product layer has not been identified at the site.

Soil and groundwater samples were collected in 1994 through 1998 to determine the nature and extent of the groundwater contamination. This data was compared to environmental goals that are protective of human health and the environment, (e.g. drinking water standards for groundwater). This testing identified two separate groundwater plumes at the site. The larger plume contains fuel-related chemicals (i.e. ethylbenzene, toluene, and xylene). This plume is related to the site fueling operations and is approximately 520 feet long, 220 feet wide (2.6 acres), and up to 20 feet thick. The plume is in the area of the former underground storage tanks. The other plume contains freon and is located adjacent to the former underground storage tank area. The source of the freon is not as certain, but is approximately 120 feet long, 60 feet wide (0.17 acre), and up to 20 feet thick.

Although the environmental concern for the site is groundwater, some limited soil contamination was identified at the groundwater interface at approximately 15 feet below ground surface. During removal of the underground storage tanks in the 1990's, some petroleum-contaminated soils were observed closer to the surface, but were removed at the same time as the tanks.



EVALUATION OF ALTERNATIVES

The selected remedy must protect human health, the environment, be cost effective, comply with statutory laws, and utilize permanent solutions, alternative technologies, or resource recovery technologies to the maximum extent practicable.

Alternative 1: No Action

No additional remedial actions would occur. This alternative leaves the site in its present state and would not provide any additional protection of human health or the environment. Although there are no current receptors of the groundwater, the groundwater can migrate to new areas and/or personnel can unknowingly ingest contaminated groundwater in the future. There are no costs associated with the no-action alternative.

Alternative 2: Institutional Controls and Natural Attenuation

This alternative consists of natural attenuation and institutional controls (i.e., monitoring of natural attenuation and site development restrictions). This alternative would monitor natural attenuation of groundwater contaminants. New monitoring wells may be installed and groundwater monitoring would be conducted for an extended period of time (30 years). Site development restrictions would be implemented in the facility transfer documents. A reevaluation of the site would be performed every 5 years to determine whether any changes to the controls or remedy would be required. The estimated cost for this alternative is \$1,230,000.

Alternative 3: Groundwater Extraction, Treatment, and Discharge

Plume remediation would be used to accelerate the cleanup of groundwater and ensure that contaminated groundwater is not migrating off site. Soil would be addressed through natural degradation processes including biodegradation and flushing to groundwater. New groundwater extraction wells would be used. Extracted groundwater would be treated to meet groundwater standards prior to reinjection. Groundwater extraction and treatment would be conducted for up to 4 years. If after four years of operation groundwater cleanup is not complete or contaminant removal has become

inefficient, then the remedy may become institutional controls and natural attenuation. The estimated cost for this alternative is \$4,900,000.

Alternative 4: Air Sparging/Bioventing

This alternative was developed as an in-situ treatment alternative. This alternative consists of installing an air sparging/bioventing system and conducting short-term groundwater monitoring. This treatment system would be installed to treat soil and groundwater within an area of approximately 2.8 acres, which corresponds to the extent of groundwater contamination. The air sparging system would inject air into the saturated groundwater zone. Vapor extraction wells would be installed in the overlying soils to remove the VOCs released from the groundwater and contaminated soils and biodegradation products. Groundwater extraction and treatment would be conducted for up to four years. If after 4 years of operation groundwater cleanup is not complete or contaminant removal has become inefficient, then the remedy may become institutional controls and natural attenuation. The estimated cost for this alternative is \$1,570,000.

Alternative 5: Bioremediation with Oxygen Releasing Compounds

Alternative 5 was developed as an active in-situ bioremediation alternative to avoid extracting contaminated groundwater or air. This alternative consists of adding oxygen releasing compounds (ORC) to the groundwater and groundwater monitoring. The ORC would be installed to treat groundwater within an area of approximately 2.8 acres, which corresponds to the extent of groundwater contamination. The ORC would be added periodically over a 4 year period. Site development restrictions would be implemented into the facility transfer documents. A reevaluation of the site would be performed every 5 years to determine if any changes in the controls would be required. If after 4 years of operation groundwater cleanup is not complete or contaminant removal has become inefficient, then the remedy may become institutional controls and natural attenuation. The estimated cost for this alternative is \$4,500,000.

PROPOSED REMEDIAL ACTION PLAN

The Navy is proposing Alternative 4 based upon results of the RI/FS and the evaluation of all alternatives. Alternative 4 would meet cleanup criteria, prevent exposure to site-related contaminants in the soil and groundwater, actively restore a natural resource (sole source aquifer), and prevent further deterioration of downgradient groundwater conditions.

A copy of the Proposed Remedial Action Plan for Site 7-Fuel Depot will be placed in the Navy's Information Repository located at the Riverhead Free Library. A notice of its availability for public review will be issued in the Suffolk Life and Newsday newspapers. A 30 day public comment period has been established that will run from April 2, 2002 through May 3, 2002. A public meeting to announce the Navy's proposed remedy has been scheduled for Wednesday, April 17, 2002, at Riverhead Town Hall. The meeting will begin at 7 p.m. and will be preceded by a poster session that will begin at 6:30 p.m. Comments that are received at the public meeting will be evaluated and incorporated, if appropriate, into a Record of Decision (ROD).

FOR MORE INFORMATION, PLEASE CONTACT

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Alternative 4 Schematic

